

Abstract of the Disclosure

DWF4 POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF

5 The present invention relates to novel, polynucleotides isolated from dwarf plants. The *dwf4* polynucleotides that encode all, or a portion of, a DWF4 polypeptide, a cytochrome P450 enzyme that mediates multiple steps in synthesis of brassinosteroids. The present invention also relates to isolated polynucleotides that encode regulatory regions of *dwf4*. Uses of the *dwf4* polypeptides and
10 polynucleotides are also disclosed.